APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,492	02/03/2006	Shinji Furusho	YOSHID0019	4362

24203   7590   09/16/2008
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EXAMINER
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ART UNIT	PAPER NUMBER
2169	

MAIL DATE	DELIVERY MODE
09/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *03 February 2006*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-28* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-28* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *25 April 2005* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some * c) ☐ None of:
        1. ☒ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *2/3/06*.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

1.   This communication is in response to Preliminary Amendment filed April 25,

2005. Claims 1-28 are pending. Claims 4-8 and 12 are amended. Claims 13-28 are

newly added.

Specification

2.   The abstract of the disclosure is objected to because it exceeds the length of 150

words. Appropriate correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out
and distinctly claiming the subject matter which the applicant regards as his
invention.

3.   Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Referring to claims 1 and 3, the claims recite the limitation "extracting a subset as

a processing object from a tabular format data as an array of records.." in the preamble

of the claims. It is unclear whether the subset refers to a subset of the array of records

that is extracted. Examiner suggests rephrasing this limitation to more clearly recite the

contents of the subset.

Referring to claims 1 and 3, the claims recite the limitation "extracting a subset..from a tabular format data as an array of records each including an item and an item value.." in the preamble of the claims. However, it is unclear as to whether each record in the array of records includes an item and an item value.

Referring to claims 1 and 3, the claims recites the limitation "..constructing the tabular format data by dividing *it* into information blocks" in para. 2 of the claims. However, it is unclear as to what is divided into information blocks. Since, the tabular format data is being constructed, Examiner is unsure as to how the tabular format data can be divided when it has not yet been constructed.

Referring to claims 1 and 3, the claims recites the limitation "..constructing the tabular format data by dividing it into information blocks *each* including a value list.." in para. 2 of the claims. However, it is unclear as to whether each of the information blocks includes a value list.

Referring to claims 1 and 3, the claims recite the limitation "an ordered set array containing recording numbers of the subset". It is unclear as to what information the "recording numbers of the subset" are comprised.

Referring to claims 1 and 3, the claims recites the limitation "..in response to selection of a subset as a part of the records" in para. 3 of the claims. However, this

limitation lacks antecedent basis because there is no previous mention of a selection of

a subset of records.

Referring to claims 1 and 3, the claims recite the limitation "a step of

arranging..correspondingly to the position" in para. 4 of the claims. However, it is

unclear as to whether the pointer value in the pointer array is arranged into an item

value number array that corresponds to a record number position.

Referring to claims 1 and 3, the claims recites the limitation "..the position where

the record number is arranged" in para. 4 of the claims. This limitation lacks antecedent

basis.

Referring to claims 1 and 3, the claims recites the limitation "a value in the value

list" in para. 6 of the claims. However, it is unclear as to which of the two value lists is

being referenced.

Claim 9 is similar to claim 1 and therefore also contains the same 112

deficiencies of claim 1 listed above.

Claim 11 is similar to claim 3 and therefore also contains the same 112

deficiencies of claim 3 listed above.

Referring to claims 4, 12, 13, 14, 27, and 28, the claims recites the terms "value list" in para. 1 and 2 of the claims. However it is unclear as to which of the two value lists is being referenced.

Referring to claim 6, the claim recites the limitation "a step of creating a classification number array..correspondingly to an element". However, it is unclear as to whether the classification number is arranged to be corresponding to an element of the second value list.

Referring to claim 7, the claim recites the term "value list" in para. 4 of the claim. However it is unclear as to which of the two value lists is being referenced.

Referring to claims 4, 12 and 13, the claims recite the limitation "[the step] e)" in para. 2 of the claims. These limitations lack antecedent basis.

Referring to claim 14, the claim recites the limitation "[the step] d)" in para. 2 of the claim. This limitation lacks antecedent basis.

All claims not addressed and depending from the aforenoted claims therefore inherit the aforenoted deficiencies and are hereby rejected.

Due to the number of 35 USC § 112 rejections, the examiner has provided a number of examples of the claim deficiencies in the above rejections, however, the list

of rejections may not be all inclusive. Applicant should refer to these rejections as

examples of deficiencies and should make all the necessary corrections to eliminate the

35 USC § 112 problems and place the claims in proper format. The claims have been

treated on their merits as best understood by the examiner.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

4.   Claims 9-12, 27, and 28 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Referring to claims 9 and 11, the claims recite a data processing program for

operating a computer. However, the claims disclose software per se since they lack the

hardware necessary to realize any underlying functionality. Examiner suggests that the

preamble of the claims be rephrased so as to enable the program to be tangibly

embodied in a computer readable medium in order to make the claims describe

statutory subject matter.

To expedite a complete examination of the instant application, the claims

rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth

below in anticipation of applicant amending these claims to place them within the four

statutory categories of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a
foreign country or in public use or on sale in this country, more than one year
prior to the date of application for patent in the United States.

5.   Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by

JP2000339390 by Kosho Shinji (hereafter Kosho), as provided by the Applicant (an

Examiner-obtained translation of the publication is being used for the rejection).

Referring to claim 1, Kosho discloses a data processing method for extracting a

subset as a processing object from a tabular format data expressed as an array of

records each including an item and an item value belonging to the item (Abstract),

comprising:

a) a step of constructing the tabular format data by dividing it into information

blocks each including a value list in which item values are stored in order of item value

numbers corresponding to the item values belonging to a specific item and a pointer

array in which pointer values to indicate the item value numbers are stored in order of

unique record numbers (Abstract; see para 5);

b) a step of creating, in response to selection of a subset as a part of the records,

an ordered set array containing recording numbers of the subset (see para. 5);

c) a step of arranging a pointer value in the pointer array at a position indicated by each of the record numbers of the ordered set into an item value number array correspondingly to the position where the record number is arranged (see para. 5-6 and 12-13); and

d) a step of creating a second pointer array storing position elements and a second value list storing value elements by referring to the value in the item value number array, and wherein a value in the value list is specified from a record number of the ordered set array through an element in the second pointer array at a position indicted by the record number and an element in the second value list at a position indicated by the element in the second pointer array (see para. 8).

Claim 3 is similar to claim 1 and is thereby rejected for the same reasons as claim 1 above.

Claims 9 and 11 are directed to data processing programs (see para. 19) and are similar to claims 1 and 3 above. As such, claims 9 and 11 are rejected for the same reasons noted above.

Referring to claims 2 and 10, Kosho discloses sorting the elements in the item value number array, creating an array in a state when a duplicate value is excluded, and making this the second value list and creating the second pointer array by converting the elements in the item value number array to reflect the sort and exclusion of the duplicate value (see para. 12, 14, and 15).

Referring to claims 4, 12-14, 27, and 28, Kosho discloses comparing a size of the ordered set array with a size of the value list, wherein as a result of the comparison in a case where the size of the subset is smaller than the size of the value list at a predetermined rate the steps c) and d) or the steps c) and e) are performed (see para. 17).

Referring to claims 5 and 15-17, Kosho discloses specifying an element indicating an item value as a retrieval object among elements in the second value list; arraying a value indicating that a flag is on at a position corresponding to a position of a specified element in a flag array having the same size as the second value list; specifying an element of the second pointer array indicated by a record number in the ordered set; referring to a state of a flag at a position indicated by an element of the second pointer array in the flag array; and successively arranging the record number into a newly provided ordered set array for output in a case where the state of the flag is on (see para 22-25).

Referring to claims 6 and 18-20, Kosho discloses creating a classification array in which a classification number indicating a category of a value is arranged correspondingly to an element of the second value list; specifying a record number in the ordered set array corresponding to the specified classification number; and

performing aggregation using a predetermined value list item value indicated

by the specified record number (see para. 23-25).

Referring to claims 7 and 21-23, Kosho discloses calculating an existence

number as the number of elements indicated by the second pointer array for each value

of the second value list; creating, based on the existence number, a cumulative number

array corresponding to a value of the second value list and indicating a head position at

which a record number in the ordered set array is to be arranged; and referring to the

cumulative array and arranging a record number of the ordered set array into an array

for output so that a sort order of the item values in the value list is reflected (presence

number, para. 23-27).

Referring to claims 8 and 24-26, Kosho discloses finding an item to be shared in

each of the plural tabular format data; equating item values in the second value list of

the information block relating to the item; and in response to equating the item values,

updating an element in the second pointer array in each of the information blocks in

accordance with a change in arrangement of the item values (para. 23-27).

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The following patents or publications are cited with respect to pointer arrays and

ordered arrays:

- US Patent 6,032,207 issued to Wilson, as disclosed by Applicant.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cheryl M Shechtman who can be reached on (571) 272-

4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Trujillo can be reached on (571) 272-3677. The fax phone number

for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl M Shechtman/

Examiner, Art Unit 2169

September 10, 2008

/Uyen T. Le/

Primary Examiner, Art Unit 2163